

**Comments to the Illinois Commerce Commission**  
**Thursday, March 16, 2005**

The Department of Commerce and Economic Opportunity (DCEO) thanks the Commission for the opportunity to comment on Governor Blagojevich's Sustainable Energy Plan and, specifically, to comment on the proposed \$10 million in annual funding for DCEO energy efficiency programs. It is a pleasure to be here. Special thanks go to Chairman Edward Hurley for making the Sustainable Energy Plan a priority, and to Commissioner Lieberman for his leadership in this process, and to Commissioners Kevin Wright, Lula Ford and Erin O'Connell-Diaz for their interest and for taking the time to attend this meeting..

Over the last several weeks, Commissioner Lieberman and I have been asked a lot of questions about the plan. I am grateful to the Commission for this opportunity to address the energy efficiency-related issues raised in those questions with all the parties assembled here today.

The major questions I have been asked about energy efficiency fall into five categories -- so for purposes of my comments here I would like to make five points, and supplement those five points with two examples.

1) The most basic question on the table is: "Why should DCEO administer a \$10 million per year energy efficiency fund when utilities also will be procuring energy efficiency and demand reduction services through some manner of RFP in order to meet the Energy Efficiency Portfolio Standard goals?" As the plan was under development in the Governor's office, I believe there were three major motivations behind supplementing the Energy Efficiency Portfolio Standard with direct funding for DCEO energy efficiency programs. Those three reasons are:

i) DCEO energy efficiency programs can "prime the pump" for new energy efficiency practices and technologies that could not immediately compete successfully under the criteria specified in utility efficiency RFPs, but may well be competitive in the future. As the Energy Efficiency Portfolio Standard percentage increases over time, a larger number, variety, scale of efficiency measures will be necessary in to ensure robust competition amongst bidders. The DCEO funding will be a source of vital seed money to continuously develop a new supply of energy efficiency measures and program applicants. For instance, DCEO has supported Midwest Energy Efficiency Alliance (MEEA) residential Energy Star lighting programs for several years. These programs have been highly cost effective—in later years, costing under one cent per kWh saved—but in the initial years there was significant uncertainty as to the scale of the market and anticipated costs. As a result, in the initial years, it would have been highly unlikely that MEEA would have been able to respond to an energy efficiency RFP with a bid because it would not have been possible to demonstrate that the MEEA programs would produce predictable savings at a predictable price. However, after several years of experience with its lighting programs and with the Illinois market, we expect that MEEA will be well-placed to submit a binding bid for its Energy Star lighting programs when utilities issue RFPs to meet the efficiency targets specified in the Sustainable Energy Plan..

ii) DCEO energy efficiency funding will also be needed to supplement easy-to-quantify/easy-to value energy efficiency measures that are most likely to compete successfully under utility RFPs, with energy efficiency programs which have benefits that are difficult to quantify and which produce qualitative benefits that are even more difficult to quantify. . Examples of cost-effective programs that have strong qualitative benefits and difficult to calculate quantitative benefits include energy efficiency education, training, and technical assistance programs.

For example, DCEO funding could be used to support education programs to aid compliance with Illinois' recently enacted commercial energy efficiency building codes. As a result of these education programs, the efficiency of many new construction projects could be increased. However, it is very unlikely that the benefits of such educational programs would be quantifiable in such a way that they could be part of a bid submitted in response to an energy efficiency RFP issued by utilities.. The focus of utility RFPs will likely be something like commercial lighting upgrades at existing commercial businesses, where (even when done on a large scale) very specific amounts and locations of energy efficiency and demand reductions can be identified and guaranteed.

iii) DCEO funding will help Illinois obtain SIP-credits for air emission reductions associated with implementation of the Sustainable Energy Plan. DCEO is working with the United States Environmental Protection Agency and the United States Department of Energy to develop methodologies to quantify emission reductions from energy efficiency and renewable energy so that Illinois can get credit for these reductions in future State Implementation Plans that are required under the Clean Air Act. This is a significant opportunity for states to take credit for no-and-low cost efficiency and renewables measures and therefore avoid imposing pollution control requirements that are likely to be much more burdensome and costly for private industry.

Thus, direct funding for DCEO is needed to: (1) prime the pump for new energy efficiency programs and practices; (2) support programs that have benefits that are difficult to quantify; and (3) help Illinois obtain SIP credits for emission reductions from investment in efficiency and renewables.

2) The second common question relates to the recoverability of the utility payments to the \$10 million per year Energy Efficiency fund. The answer is simple: we expect all costs incurred by utilities in connection with the Sustainable Energy Plan to be fully recoverable.

3) The third common question relates to the existing \$3 million per year in electric utility funding for the DCEO (residential) Energy Efficiency Trust Fund and whether that fund is expected to continue along with the new \$10 million dollar fund. DCEO does anticipate renewal or expansion of the \$3 million residential energy efficiency fund (as well as the renewal or expansion of the \$5 million Renewable Energy Resources Trust Fund and the \$5 million clean coal development fund). DCEO notes however that the efficiency fund is currently not a recoverable charge (unlike the renewables and clean coal funds, which are assessed as a charge on customers), and recommends that funding for the Energy Efficiency Trust Fund be made recoverable. The residential Energy Efficiency Trust Fund was established under the 1997

electric deregulation law and sunsets after ten years, so renewal of the fund will require a change in the statute at some point in the future.

4) The fourth common question relates to whether the fund has any anticipated specific sector targets, such as residential, commercial, or industrial customer segments. Because the existing Energy Efficiency Trust Fund is restricted to residential efficiency programs, and because of the high priority that Governor Blagojevich has placed on reducing the cost of doing business in the state of Illinois and on retaining and attracting manufacturing jobs in the state of Illinois, the anticipated focus of the \$10 million fund will be on the commercial and industrial sectors.

Focusing the new funds on the commercial and industrial sectors will ensure a diverse portfolio of efficiency programs for all customers and will send a clear signal to businesses that the Sustainable Energy Plan will help to reduce their net energy costs. ,

5) The final question that I've been asked about DCEO Energy Efficiency funding relates to evaluation criteria that the Agency might use to prioritize spending of the \$10 million dollars.. The answer is broadly that this is very much open to discussion, and DCEO would appreciate input from any stakeholders regarding their thoughts on the efficiency programs, DCEO anticipates the need to continuously update the programs and, therefore, the criteria will likely evolve over time. I have had the pleasure of discussing potential evaluation metrics with Janet Bieniak and Charlie Budd of ComEd, as well as with Bill Barbieri, Dan Lidisky, and Randy Mitchelson of Ameren, and would look forward to such conversations with MidAmerican, Alliant, and other stakeholders.

Having broadly indicated that the subject of evaluation metrics is open to discussion and may evolve continuously, it is nevertheless clear that current criteria would include:

- Cost-effectiveness on an energy saved basis, and the potential for market transformation;
- Complementing the Energy Efficiency Portfolio Standard by priming the pump for new energy efficiency programs and practices, by supporting programs that produce benefits that are difficult to quantify; and by helping Illinois obtain SIP credits for emission reductions from investment in efficiency and renewables;
- Supporting economic development, job creation, and manufacturing job preservation in accordance with the overall mission of the Department of Commerce and Economic Opportunity.

Additional funding for DCEO energy efficiency f programs would likely be used to expand two new pilot energy efficiency programs aimed at reducing the costs of doing business for commercial and industrial energy customers in Illinois.

#### Commercial: Small Business \$mart Energy

The Small Business \$mart Energy Program is a design assistance and education program aimed primarily at new construction/ gut rehabs by Illinois' commercial and light industrial customers. Partnering with the School of Architecture at the University of Illinois at Urbana Champaign,

and with other sub-partners such as the national Ground Source Heat Pump Consortium, DCEO provides design assistance and educational workshops to promote super-efficient design in commercial buildings.

Under the program, when a business is planning a new facility or major rehab project and has developed rough plans for the project, those plans are submitted to energy efficiency design experts through the School of Architecture for review. The experts review the plan and provide both recommended improvements and a financial analysis. Sometimes the recommended improvements actually result in lower first costs, but where the improvements require a higher first cost, that incremental cost is presented in terms of the Internal Rate of Return (IRR) and in terms of the monthly and annual net cash flow. The program requires that all recommendations have at least a 15% rate of return to make the cut as a final recommendation, a level that is comfortably above the cost of money for such projects. By “net cash flow” analysis we mean that if the higher incremental cost of the improvement is (for sake of argument) \$100, and the monthly higher loan cost is \$3, and the monthly energy savings are \$6, then the project has a monthly positive net cash flow of \$3 for the duration of the loan and \$6 thereafter.

The purpose of the program is to encourage businesses to adopt the recommended improvements simply on the basis of their cost effectiveness. The program does not offer direct grants to businesses to encourage them to adopt the recommendations.

The program also offers workshops and training to architects, engineers, building trades, ground source heat pump industry professionals, and building operators to facilitate the adoption of best practices in energy efficiency across those industries. We find the School of Architecture to be an ideal partner for this program because of the large number of alumnae active across Illinois, because of the prestige of the institution, and because of the current existence of the school’s continuing education programs.

The program is currently finishing a pilot stage and moving into the full program stage. Under the pilot there were twenty design assistance projects and, while some of those are still underway and final implementation levels are yet to be determined, three examples that are complete can be briefly discussed here:

- A new construction project for a high tech company in a research park in Ameren’s territory resulted in an immediate reduction in the first cost of the building by \$50,000, and in estimated annual energy savings of \$6000 per year;
- A major rehab at a light industrial facility in ComEd’s service territory, focused on HVAC improvements, required a higher first cost of \$30,000, and brought \$19,000 per year in annual energy savings;
- A new construction project for a commercial/ warehouse project in MidAmerican’s service territory included recommendations for Ground Source Heat Pumps, an HVAC technology that reduces peak electric demand while providing large overall energy reductions. As a result of the recommendations, the project had a higher first cost of \$58,000 and produced \$10,000 per year in energy savings. I mention this project here not because the total savings are the highest—they aren’t—but rather because under traditional energy financial analysis, called “payback”, such a project would likely not be recommended as the simple payback is almost six years. However, as a result of the IRR

analysis (indicating a 15-20% IRR) and the net cash flow analysis, the company proceeded with the recommendations, indicating the key role of educating businesses as to energy financing in energy efficiency programs.

To summarize the Small Business Smart Energy program: all of the businesses in the pilot saved money and all of the projects brought reliability benefits to the entire grid. However, the Small Business Smart Energy program as whole, at least in its initial years, would have great difficulty bidding under a utility efficiency RFP without a demonstrated track record to guarantee predictable results.

#### Industrial: Manufacturing Energy Efficiency Program

DCEO has also initiated a pilot energy efficiency program that targets the large manufacturing sector—large for purposes of this program understood as businesses with an annual energy spend over \$500,000. The Governor directed the Agency in 2003 to start the Manufacturing Energy Efficiency Program to help stop the alarming loss of manufacturing jobs in the state and to help manufacturers cope with natural gas prices that have been volatile and high for the last several years.

The first thing to be noted about that the Manufacturing Energy Efficiency Program is that it bears little resemblance to the prior industrial efficiency programs of a decade ago. The earlier programs would often feature very large grants to a very small number of manufacturers, which may have helped the facilities receiving the grants but also frequently had the unintended consequence of angering their competitors, who perhaps reasonably felt that the grantee had been handed an unfair advantage. In contrast to such programs, the Manufacturing Energy Efficiency Program is a “standard offer” program available to all large industrial energy consumers—again sending the clear signal that the purpose of the program is not to advantage a specific business but rather to assist in reducing the cost of doing business for large manufacturers across the state.

The strategy of the program is to involve senior decision-makers in Illinois’ manufacturing facilities in a management-practices assessment and thereby focus on measures that can bring high returns with modest investments. The program therefore helps managers set efficiency goals and priorities, improve energy information management systems, identify operations and maintenance improvements, develop improvements in worker training, and identify areas where physical technical assessments are appropriate. DCEO supports 50% of the costs associated with such steps, up to \$20,000 per manufacturer, as long as the manufacturer is matching the costs. At this cost level, the agency is able to offer support to a broad swath of manufactures across the state on an equitable basis, and to provide highly cost effective efficiency support.

Thus with the Manufacturing Energy Efficiency Program, as with the Small Business Smart Energy Program, all of the businesses saved money and all of the projects brought reliability benefits to the entire grid. However, the Manufacturing Energy Efficiency Program (like the Small Business Smart Energy Program) would have great difficulty bidding under a utility efficiency RFP without a demonstrated track record guarantee a specific level of energy efficiency savings.

It has been my pleasure to provide these comments, and I look forward to any questions either today or in the future.

Thank you.

Comments of behalf of the Illinois Department of Commerce and Economic Opportunity as provided orally this 16<sup>th</sup> Day of March, 2005, by:

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